

ABSTRACT OF THE DISCLOSURE

An electron microscope is provided, which enables an observation with high resolution. The electron microscope is able to detect the deviation of an electron beam relative to the opening of a slit quantitatively, thereby shifting the electron beam accurately to the center of the opening of slit so as to execute energy selection. The electron microscope has an energy filter control unit for adjusting a relative position between an electron beam and a slit by shifting the position of electron beam based on a signal delivered by an energy filter electron beam detector. Also a method for controlling an energy filter is provided, which includes the steps of shifting the position of an electron beam, determining the position of electron beam and letting the electron beam pass through the center of an opening of the slit by controlling the position of slit or position of electron beam.